

THE LEISURE HOUR.

A FAMILY JOURNAL OF INSTRUCTION AND RECREATION.

"BEHOLD IN THESE WHAT LEISURE HOURS DEMAND,—AMUSEMENT AND TRUE KNOWLEDGE HAND IN HAND."—Compton.



THE TRAVELLING QUACK DOCTOR.

GEORGE BURLEY;

HIS HISTORY, EXPERIENCES, AND OBSERVATIONS.
BY G. E. SARGEANT, AUTHOR OF "ADVENTURES OF A CITY ABAB."

CHAPTER XVI.—THE QUACK DOCTOR.

THE remaining half-hour I spent with Marmaduke in his mother's garden was neither enlivening nor instructive, and I was not sorry when I received a summons, by the mouth of Marianne Bolster, to rejoin Mr. Falconer, who was ready to leave. I was proportionately surprised, therefore, when Marmaduke (on my receiving this summons) turned round upon me, and expressed a

hope that I would come and see him again, because he had so much enjoyed my society.

Departing from the garden, I found Mr. Falconer in the passage. He was indulging, I suppose, in a few last words with the lady, the purport of which, as far as it reached my ear, was that he was invited, and accepted the invitation, to spend a day with her before his return to London. As a matter of necessity, I was included in this invitation.

Our return walk was a very silent one. We almost lost our way once or twice, I remember, when we got into the parks of which I have made mention, and should

have done so altogether if I had not had my wits about me. Set right by these, however, we reached the Wingham "Lion" in safety, much to the satisfaction of the landlady, who began to fear that the dinner she had provided for her guests would be spoiled by over-cooking; much also to mine, for I was tired by the double walk, and hungry from long fasting; and much to that of Alphonse, who, being a stranger in a strange land, began to have dismal apprehensions respecting the barbarians by whom he was surrounded.

I shall pass over the other events of that day, until the evening, when I witnessed an amusing scene which I shall endeavour to describe.

I had been out in the town, with Alphonse as my companion, and had just re-entered the inn, when loud shouts of laughter, from the large kitchen or tap-room of the "Lion," attracted our attention; the laughter being occasioned, as it seemed, by the utterances of a sharp and quick, but monotonous voice, which was evidently addressing a visible and amused, if not derisive audience. The room being immediately on our left hand as we entered the house, and the door being partly open, it being also a public room, there was no particular reason (so I thought, at least) why I and Alphonse should not share in the fun which seemed to be going on.

There were a score or more townsmen, of a rather low class apparently, seated at benches with their ale-pots before them, and some of them were smoking tobacco. All of them were listening to a strange-looking fellow who, standing by a small table near the middle of the room, which was spread over with a number of pill-boxes, gallipots, phials, and small paper packets, was loudly vaunting the virtue of his medicines, and urging the company to buy, and thus ensure to themselves the means of long life, perfect health, and entire ease from all the pains incident to humanity. I have said that the quack doctor (for this, no doubt, was his vocation) was a strange-looking fellow. And so he was. His countenance—so much as could be seen of it—was thin and remarkably sallow. His eyes, which were dark and sparkling, were overshadowed by enormous and very bushy brows, black as jet; these corresponded in colour with a beard and moustache of large dimensions, which almost concealed his mouth, and added to the pallid appearance of the cheeks which they left uncovered. The hair on the charlatan's head did not match in texture, however, nor quite in colour, with that on the lower part of the face. It was thin, and limp, and rusty, and, being combed smoothly back from the margin of a rather low forehead, gave to that feature as much length and breadth as could be spared to it by the encroaching eyebrows below. The costume of the gentleman was, as I could not help remarking, particularly shabby, proving that he had a soul above buttons, or that the pressing ardour of his lofty and liberal pursuit of the healing art gave him no time to attend to the fopperies of dress, or, lastly, that his benevolent designs towards suffering humanity brought but scant supplies to his purse. My readers must pardon this rather prolix description of a personage of whom I shall have to write more before my story is ended, and whom I at once concluded to be the Monsieur le Grand who had so offended the lady I had that day visited, with his handbill, the more so that he spoke with a decidedly foreign accent, which denoted him to be a Frenchman.

"See here," he was saying as I entered the room, and he held up a small pill-box between his finger and thumb—"in this leetle box is von, two, t'ree, vat you call pill. Do you take too much rosbif for your dinner? Very good! or drink too much of the strong beer of

my friend in this hotel, and the 'Lion' mount up into your brain? Very good too! Then you say, 'This will not never do: my head swim, my vat you call stomach rebel at being so put upon. I must put an end to this business: I must leave off to eat and drink.' I say no, you shall not do not'ing of the sort. Here is von leetle pill; you shall put it in your mouth, and you shall never see it no more; but, hey! in von leetle half-hour you shall feel as you nevare was, and you shall go again to your rosbif and plum-pood'en and your good beer; and it shall do you no more hurt than not'ing at all.

"Here, again," continued the quack, putting down the pill-box and taking up a packet, "is von leetle dust of poudre. You have child, poor leetle infant, and he say 'Week, week, week-a-week.' Then you pat him on the back, and cuddle him, and sing-song. All no use: he go on cry 'Week, week-a-week.' Then you try another plan: you give him von good shake, and von slap, and two slap and two shake; and this make him 'Week, week-a-week' all the more. Then you say, 'Oh, there is that fine leetle poudre I bought of von French doctor: I try him.' So you mix him up with some nice sugar, and pop him in the leetle child's mouth. Then you shall see he will never cry no more, but will sleep like vat you call von top, and wake up in five, six hours, altogezzer von different thing."

In the same fashion, with a wonderful amount of grimace, and with a considerable admixture of dry, droll humour which was the more quaint by being spoken in a broken dialect which I have only partially imitated, Monsieur le Grand praised his ointments and salves for cuts, wounds, and bruises, the materials for which he had obtained, without regard to expense, from the distant lands in which he had travelled. I omit altogether the apocryphal tales he told of wonderful cures wrought on princes and potentates in foreign courts by each and all of the medicines whose efficacy he proclaimed; and of the equally wonderful hair-breadth escapes he had experienced from the malice of his enemies (the regular doctors) in almost every country in the world, who were jealous of his superior skill. I omit, also, the interruptions he met with from the company in the tap-room, which sometimes took the form of a civil banter, sometimes of an impudent question, and still oftener of peals of merry laughter elicited by the impudent pretensions of the charlatan. Whether eventually he succeeded in disposing of his stock of pills, powders, and salves, or at what price he dispensed them, I am unable to say, as I soon got tired of the scene, as well as half-choked with the fumes of strong tobacco, and withdrew, leaving Alphonse, however, to profit (if he would) by the skill of the charlatan, who, if not his own countryman, was, like himself, a foreigner.

It was from Alphonse I afterwards learned that the quack doctor, having exhausted his panegyrics on his medicines, condescended to amuse the company in the tap-room by various tricks of legerdemain, which, as they were represented to me as being remarkably clever and surprising, I regretted I had not stayed to witness.

CHAPTER XVII.—I WITNESS A CURIOUS TRANSFORMATION.

On the following morning, while we were at breakfast, Mr. Falconer told me that he should be busily occupied in writing for two or three hours in the forenoon, and recommended me to take a morning walk into the country, attended by Alphonse. Accordingly, when our meal was finished, I sought the Frenchified Swiss, but, not immediately finding him, and also not particularly desiring his company, I put on my hat and went out alone.

The little town itself did not need much exploring; and, being soon tired of staring in at the windows of the few shops it boasted, I struck into the country, in a direction opposite to that of our walk of the previous day; and, after following some distance the windings of a small river or stream, I crossed a meadow by a footpath which apparently led to a neighbouring village, the church spire of which was to be seen in the horizon. Arriving, by means of this footpath, at a narrow bridge which crossed the little river, I sat down and watched the water as it rippled along the weedy banks.

How long I sat there, in the strange dreamy mood which flowing water is apt to engender in the mind, I cannot say. I know only that I was suddenly roused from my solitary thoughts and air-built castles by a hand laid rather heavily on my shoulder; and, on turning quickly round, I encountered the visage of Monsieur le Grand, who was looking down upon me, over his black moustache and beard, with a grim sort of smile.

"So, young fellow, you are here, are you?" said he, not at all in a foreign accent, however, which would, no doubt, have surprised me if I had given the circumstance a thought; but I did not.

"Yes, sir," said I.

"And if I were to pitch you into the river, what would you do then?" he asked.

"Get out again, on the other side," I answered, springing on to my feet, and putting myself on my guard; for I did not know how far the Frenchman might be in earnest.

I had a better opportunity now than on the previous evening of scanning the quack doctor's countenance, especially as he did not seem immediately disposed to put his implied threat into execution. My examination, as I stood looking him steadily in the face, led to no result, however, save that of a confused, dreamy idea that I had somewhere or other seen him, or some one exceedingly like him, at no distant period of my life. I rather think that he enjoyed my inquisitive looks and my evident perplexity, for he stood patiently under my scrutiny, only carelessly swinging to and fro a largish green baize bag he carried in his hand, which, I suppose, contained his stock of medicines.

"Well?" said he, when I had had my stare.

"Well?" said I.

"You will know me again the next time we meet, I suppose?" he continued.

"Yes, sir."

"Don't make too sure of that, Mr. Hurly Burly," said he, grinning.

"How came you to know me?" I asked, in some surprise that he had my nickname so pat upon his tongue.

"Because I am a conjurer, and know everything. How did you enjoy your walk yesterday?"

"I don't know what business that is of yours, sir," said I, rather chafing under his keen gaze, and resenting his unsought familiarity. "But if you know everything," I added, "you need not ask me any more questions."

"Ho, ho! Sharp, too, I declare! But don't be too saucy, young gentleman. Remember, the river is close by, and it wouldn't cost me much to give you a good sousing. And as to questions, I shall ask you as many as I please; and you will please to answer them. To begin at the beginning, what has brought you all this way from London?"

"You know as well as I do, I dare say," I replied; "but, if you must be told, I came because—because I was told to."

"Good boy! Do as you are bid; your good manners

then will never be hid. There's an old song for you. And the old lady in green barnacles, she was very pleased to see you yesterday, I suppose?"

"Better pleased than she will be to see you, sir," I answered, laughing at my remembrance of Madam Toxer's indignant mention of the "pills, powders, and salves," and at her ridiculous mistaking Mr. Falconer for the foreign quack.

"You are merry, are you, young fellow?" remarked the charlatan: "what are you grinning at?"

"I beg your pardon, sir," I responded: "I was not laughing at you. I was only thinking of a mistake the lady made. She thought Mr.—somebody else was you; and it made her angry."

"Mr. Somebody Else means Mr. Falconer, of course. I told you I was a conjurer. So she fancied he was the doctor, eh? A good joke, that. Well, I will forgive your laughing if you will tell me what the lady said."

"She said she did not want any of your pills and stuff."

"Pho! she shall have them whether she wants them or not. She is an old acquaintance of mine. I sold her those green spectacles, for instance. But that's no answer to my question. You must tell me all that passed between her and Mr. Somebody Else, as you call him."

"No, I won't," said I, promptly, remembering the character Mr. Falconer had given me for discretion and trustworthiness. "You may drive me into the river if you like," I added, boldly—for the fellow had placed himself in such a position that I could not have escaped from him without plunging into the water—"you may do what you like; but I won't answer any more of your questions, which you have no right to ask. I don't know how you come to know me and Mr. Falconer, and I don't care; but you have no business with me, and I wish you would let me alone."

"You are a nice young rooster to crow so loudly," said Monsieur le Grand; "I don't like you any the worse for that; but you and I must not part just yet. As to having no business with you, and letting you alone, that's all moonshine in water. Look here;" and, suiting the action to the words, he passed one hand over his face. In a moment beard, moustache, and bushy eyebrows, by some feat of legerdemain, had disappeared, and William Bix, my profligate uncle, stood revealed to me in all his baldness!

"You know me now, George," said he, quietly; "and you are not afraid of me, I suppose?"

"No-no," I replied, hesitatingly.

"You needn't be: I sha'n't hurt you. So sit down again, and I'll sit beside you. You and I must be better acquainted. Pshaw!" he added, noticing that I rather shrank from his advances: "I am not going to hurt you, I say. Why should I?"

"There is no reason why you should hurt me, uncle; but—"

"But you have heard sad stories of me, no doubt. Never mind. It is never too late to mend; and I am a reformed character now." He said this with a mocking smile, I thought; but I said—

"I am glad to hear it, uncle."

"Well, sit down, then, and let us talk things over." So he seated himself on the bank, coolly; and I sat down at a little distance from him, in some amazement, now that he had revealed himself to me, that I had not previously detected his identity. He had on the same greenish blue military frock coat, and the same dirty short pantaloons, in which I saw him when I first made his acquaintance; and these might have betrayed him if

he had not this time rather ostentatiously displayed the clean shirt front and frill which was before wanting, and also was better hatted and booted than at that former time.

CHAPTER XVIII.—ON THE BANK OF A STREAM.

"You wonder to see me here, I suppose?" said Mr. William Bix.

"Yes, uncle."

"I am an old traveller," he continued, "and I have rather a liking for the country hereabouts: the natives are so green and gullible. The last time I came this way, which was *in propria persona* and three years ago, I was in better trim than I am now. I was an optician at that time, sold spectacles and spy-glasses, and should have made a good thing of it if I hadn't been too fond of lifting my little finger—so:" he made a gesture with his hand, raising it over his mouth with his head thrown back, which explained his meaning; namely, that he had ruined his temporary success as a pedlar by overmuch drinking.

"It was then," he went on, "that I made acquaintance with the lady you and old Falconer went to see yesterday."

"How do you know we went to see anybody?" I asked, interrupting William Bix.

"I saw you go into her house."

"But I did not see anything of you," said I.

"No, I dare say you did not; and I did not mean that you should. Not that it would have mattered much if you had, for you would not have been any the wiser for it, nor would Mr. Falconer either; at least, I don't think he would have known me. But I did not choose to try the experiment, so I snugly ensconced myself in the 'Four Horseshoes,' and looked out of the window."

I remembered, when my uncle mentioned the "Four Horseshoes," that a public-house with that sign stood on the opposite side of the road, over against Mrs. Tozer's house.

"But how came you to be in this neighbourhood just at this time? And why should you be watching Mr. Falconer? Or how should you know that he would be going into that house?" I asked.

"Ho, ho! So you can ask questions as well as I," said the profligate. "Very good: you may ask as many as you please, and I shall answer as few as I please. I shall not answer these, for instance. I told you just now that I am a conjurer, and that accounts for my knowing all that I want to know, doesn't it?"

"No," I replied, bluntly; and, before I proceed any further with the dialogue which ensued, I may say that, if my readers are surprised that I, a boy of ten years old, fell in so readily with the strange humour of my companion, and conversed so readily with him, in spite of the warning I had received to have nothing to do with him, I also was equally surprised at myself. There was a sort of evil fascination about the man, I believe, which led me on. Perhaps, also, there was a natural facility in myself in being at ease with those into whose society I was thrown, which, while dangerous to me in some respects, was useful to me in others. I suppose that, in the cultivation of this adaptability (if I may so call it), the *via media* is the best way, if one can but hit upon it.

"Well, at any rate," continued my uncle Bix, "I did see you both go into Madam Tozer's house; and that is enough. I was telling you that I made her acquaintance when I was a travelling optician, and persuaded her that, if she did not keep in the shade and wear green glasses, she would lose her sight. It was all fudge, of course: her eyes are as good as yours or mine; but I

had got spectacles to sell, and I meant to sell them. I found out, too, at that time, a thing or two in her ladyship's history which I dare say you know something about too—eh?"

"I am not going to say what I know or don't know," said I, while shocked at his falsehood, warned into prudent caution by the inquisitive and eager looks of my companion, as much as by his words.

"Good boy!" he said again, sneeringly as before. "But there's a truce between us, so I shall not pitch you into the river; besides, it does not matter to me whether you know or don't know," he added, repeating my words; "so we will change the subject. I suppose you are wondering now, if the truth were known, how I came to change my trade?"

"I was wondering more," said I, "why you should dress yourself up in that beard and those eyebrows."

"I'll tell you, Hurly Burly. There are two good reasons for it. The first is that unfortunately, when I was this way before, I ran up a longish bill at my good friend's expense—the keeper of the 'Lion,' I mean—which it was not convenient to me to pay, and I was obliged to give leg-bail. Do you know what that is?"

"You ran away without paying, I suppose, uncle."

"Right. Well, it is no more convenient to me to pay it now than it was then. So, you see, I was obliged to disguise myself lest I should be too affectionately received."

"You said you were reformed, uncle," I remarked, rather scandalized at the cool manner in which he referred to his unliquidated debt.

"Don't interrupt me," he returned, "or I shall forget my second reason, which is, that the people who will buy my medicines when they fancy I am a Frenchman or a Jew, would not have them at a gift if they knew me to be an Englishman."

"All the better for them if they didn't buy them," I blurted out.

"You are wrong, Hurly," said my uncle, laughing. "My medicines will do no one any harm. You shall try them yourself," and he added something in Latin, I supposed, which I now believe to have been "*Experimentum fiat in corpore vili.*"

"No, thank you," said I, hastily, and in some slight alarm.

Uncle William did not press the point. "I shall save my pills, then," he said; "but, as to your injurious surmise, I'll give you to know that my medicines are compounded *secundum artem*, and of very harmless drugs. You may have heard that I was a doctor once, Hurly, or very near being one. At any rate, I picked up enough science to keep me from unconsciously poisoning my patients; and, as it would answer no good purpose to commit manslaughter, I don't commit it. Do you see that, Hurly?"

"How came you to know that they call me Hurly?" I asked, without answering my uncle's question.

"Hem! Well, I'll tell you. I took the liberty of making an inquiry or two of the grocer's wife round the corner, near Silver Square, and she told me."

"Well, I must go now, sir," I said, rising to my feet; for Mr. William Bix's talk began to weary me.

"No, not just yet," he rejoined, rising also. "You don't think that I have let you into my secrets for nothing, do you?"

Remembering the scene I had witnessed in Mr. Filby's shop, and the eagerness with which, afterwards, my uncle held out his hand to clutch Mr. Falconer's charitable gift, seeing, too, the present seedy plight of my ne'er-do-well relative, it was natural enough for me to say—

"I have only got five shillings" (which sum, by the way, Mr. Falconer had given me on the morning of our leaving London)—"I have only got five shillings, uncle: you can have half if you like."

"You little ——" (well, never mind what he called me)—"You little something," said he: "do you think I am going to beg of you? But it is handsome of you, too, to offer it. I don't want your money, however. The three guineas old Falconer gave me set me up in my present trade; and I have given over drinking. Didn't I tell you I was reformed? No, no; I don't want your money," he continued; "so put it up before I am tempted to take it" (it was in my hand by that time). "I want information. When are you and Mr. Falconer going back to London?"

"If you are a conjurer, uncle—" I began; but he stopped me sternly, and repeated the question.

"We are going back to London on Saturday," I said.

"And to-day is Wednesday. What are you going to do between now and then? Are you going to see my friend Mrs. Tozer again? and when?"

I did not think there could be any harm in my saying that Mr. Falconer had been invited to spend the following day with the lady, and had accepted the invitation; also, that I was to accompany him.

He muttered to himself something that I did not hear, for he was fixing on his false beard and moustache, which he drew from his pocket. When this was done, and he was busy with his eyebrows, he turned to me again.

"Now you must give me a promise, on your word and honour: say so."

"Say what, sir?"

"On my word and honour——"

"What am I to promise?" I asked, cautiously.

"That you will tell no one that you have seen me and spoken to me."

"Not Mr. Falconer, uncle?"

"No; neither Mr. Falconer nor the old man in Silver Square, nor Betty Miller, nor any one else. Do you hear?"

Hesitatingly, I gave the required promise.

"On your word and honour you won't tell: say so."

"On my word and honour, uncle."

And so we parted, not to meet again till after many days.

WILLIAM ROBERT GROVE,

PRESIDENT OF THE BRITISH ASSOCIATION.

At the twentieth meeting of the British Association, held at Edinburgh in 1850, Sir David Brewster, the President for that year, thus referred to its origin and early progress: "On the return of the British Association to the metropolis of Scotland, I am naturally reminded of the small band of pilgrims who, in 1831, carried the seeds of this institution into the more genial soil of our sister land; of the zeal and talent with which it was fostered and organized by the Philosophical Society of York; of the hospitality which it enjoyed from the Primate of England; of the invaluable aid which it received from the universities and scientific societies of the South; and of the ardent support with which it was honoured by some of the most accomplished of our nobility. From its cradle at York, the infant Association was ushered into the gorgeous halls of Oxford and Cambridge, the seats of ancient wisdom and the foci of modern science. University honours were liberally extended to its more active members; and, thus decorated,

our institution was eagerly welcomed into the rich marts of our commerce and into the localities of our manufacturing industry. Europe and America speedily recognised the importance of our rising Association, and deputies from every civilized nation hastened to our annual congress, assisted at our sectional meetings, and have even contributed to our Transactions valuable reports in different branches of science." Since 1850 men of like eminence with Sir David Brewster have in each succeeding year been chosen to preside over the deliberations of the Association. Professor Airy was the immediate successor of Sir David, and presided over the meeting held at Ipswich in 1851; while at Leeds, in 1858, Professor Owen occupied the post of honour. At Aberdeen, in the following year, the late Prince Consort acted as President; while, more lately, Sir William Armstrong, Sir Charles Lyell, and Professor Phillips have successively rendered like distinguished service; nor will the office suffer loss in the distinguished occupancy of Mr. Grove, although his name has hitherto been known to scientific circles rather than to the general public.

William Robert Grove was born at Swansea on the 14th July, 1811, and early devoted himself to scientific pursuits. Educated at Oxford, he there graduated; and, having afterwards studied law, he was, on the 23rd of November, 1835, called to the bar by the Society of Lincoln's Inn. While he has become eminent as a scientific man, his career as a barrister has been no less distinguished. The success which he has achieved as a lawyer is, we understand, more especially in connection with patent cases, in which his scientific knowledge largely avails him in the examination of witnesses. Mr. Grove is attached to the South Wales Circuit, and was made a Queen's Counsel in 1853.

On the 15th of April, 1839, Mr. Grove communicated to the Royal Academy of Sciences of Paris a paper entitled "On a New Voltaic Combination," upon which he was applied to by some Parisian savans for directions as to the construction of batteries on the principle indicated in his paper. These he furnished, and also himself constructed a battery, which in the same year was produced before the British Association. In the "Philosophical Magazine" for 1839 Mr. Grove gives an account of this new nitric acid battery, and also states the idea which had led to its construction. It is now known as Grove's battery.

The managers of the London Institution in 1841 appointed Mr. Grove Professor of Experimental Philosophy to that Institution, and required of him to deliver annually at the first *soirée* of the season a lecture on the most remarkable discoveries in science during the previous year. In the first of these lectures Mr. Grove gave a *résumé* of discoveries since the opening of the Institution in 1819. The great excellence of this opening lecture, as compressing so many points of interest, and as a vivid and lucid sketch of the progress of mechanics and chemistry, electricity and magnetism, heat and light, geology and astronomy, in the course of the preceding twenty-one years, induced the proprietors of the Institution to print it for their own use. More fully in 1843 certain views contained in this lecture were developed in a series of six lectures in the theatre of the same Institution, a *résumé* of which was also printed at the request of the proprietors, under the title of "The Correlation of Physical Forces." Of the original views contained in this work we shall have more to say hereafter.

In January 1841, at the *soirée* of the London Institution, Mr. Grove lectured on a Powerful Voltaic Combination (Grove's battery); and in November of the

same year he delivered four lectures on Magnetism. In 1842 he lectured on the Physical Elements of the Ancient Philosophers, and on Light; while in 1843, the year in which his six lectures on the Correlation of Physical Forces were delivered, he also lectured on Attraction, and on various allied subjects from time to time in subsequent years.

From the pressure of other avocations, Mr. Grove was compelled, in 1846, to resign his Professorship of Experimental Philosophy, which he did with warm acknowledgments of the uniform kindness and courtesy he had received at the hands of the managers of the London Institution.

Associated with Dr. Faraday and other eminent scientific men, Mr. Grove has discharged the office of an occasional lecturer at the Royal Institution. He is also one of the Vice-Presidents of that learned body. In January 1853, in a lecture which he delivered "On the Molecular Impressions by Light and Electricity," and published in the proceedings of the Royal Institution, we find the following interesting narration, which shows that the observing faculty, in the trained scientific mind, is not less alert in the hours of relaxation and amusement to detect facts which would readily escape others:—"While fishing in the autumn in the grounds of M. Seguin, at Fontenay, Mr. Grove observed some white patches on the skin of a trout, which he was satisfied had not been there when the fish was taken out of the water. The fish, having been rolling about in some leaves at the foot of a tree, gave him the notion that the effect might be photographic, arising from the sunlight having darkened the uncovered, but not the covered portions of the skin. With a fresh fish a serrated leaf was placed on each side, and the fish laid down, so that one side should be exposed, and the other side sheltered from the light; after an hour or so the fish was examined, and a well-defined image of the leaf was apparent in the upper or exposed side, but none on the under or sheltered side. There was no opportunity for further experiment; but there seems little doubt of the effect being photographic, or an oxidation or deoxidation of the tissue determined by light." Mr. Grove, also, in a lecture at the Royal Institution, first announced the fact of the non-conduction of electricity *in vacuo*; thus showing that matter is essential to the transmission of electricity.

Mr. Grove is also one of the Vice-Presidents of the Royal Society. In 1847 was awarded to him the Royal Medal of the Society for his papers "On the Gas Voltaic Battery, and on certain Phenomena of Voltaic Ignition." Mr. Grove's contributions to the Royal Society's Transactions have been neither few nor unimportant. The Bakerian lecture for 1847 was read by him, and was entitled "On the Decomposition of Water into its Constituent Gases by Heat." In connection with this subject, it is interesting to note that in 1782 Watt writes to Black that he had long been of opinion that if steam could be so compressed as to abide a great heat, it would change its state, and become something else than steam or water: "my opinion is that it would become thin' air." Mr. Grove's experiments, of which an account was first given to the British Association at its meeting in 1846 at Southampton, showed that this anticipation had been realized, as he had actually decomposed steam into its constituent gases by the application of heat alone, effecting this in one set of experiments by bringing the steam or water into contact with a surface of platinum raised to a white heat, and in another by merely passing the electric spark through the steam confined in a close vessel.

In the "Philosophical Magazine" for December 1842 Mr. Grove published an account of a voltaic battery, in which the active ingredients were gases, and by which the decomposition of water was effected by means of its composition. It would, however, be incompatible with the limits of this article even so much as to mention the titles of the very numerous contributions which Mr. Grove has made to natural philosophy. They will be found in the proceedings of the various learned societies and in scientific journals. Our remaining space we devote to some notice of the one work which Mr. Grove has published under his name, "The Correlation of Physical Forces," before referred to.

The position sought to be established in this volume, to use the words of the author, is, that "the various imponderable agencies or affections of matter which constitute the main objects of Experimental Physics—viz., Heat, Light, Electricity, Magnetism, Chemical Affinity, and Motion—are all correlative, or have a reciprocal dependence. That neither taken independently can be said to be the essential or proximate cause of the others; but that each may, as a force, produce or be convertible into the other; thus Heat may mediate or immediately produce Electricity, Electricity may produce Heat, and so on of the rest." Having in the first instance been printed for private circulation, inquiries were made for copies of the work, and the author, to meet the demand, was induced to issue an edition on his own account. It has now reached a fourth edition, and has also been translated in French by the Abbé Moigno.

When Mr. Grove announced, in 1842, the conclusions at which he had arrived from his own independent experiments—viz., that the affections of matter are correlative, and force consequently indestructible—he was not entirely ignorant of what had been before thought on the subject. As often occurs, however, in important scientific discoveries, similar ideas present themselves to different minds about the same time. In 1842 M. Mayer had published a paper, in which, starting partly from *a priori* reasoning, he had deduced much the same conclusions; and in 1843 a paper by Mr. Joule appeared, which, though not in terms touching on the mutual and necessary dependence of all the physical forces, yet bears most importantly upon the doctrine. M. Seguin had also, in 1839, expressed views on the identity of heat and mechanical force, and given a calculation of their equivalent relation. At a much earlier period, too, ideas had been thrown out as to the conservation of force, yet the universal belief was that on one body being arrested by the impact of another the force was annihilated. Mr. Grove's claims to originality are contained in these his own words, which we gladly reproduce: "As I have introduced into the later editions of my essay abstracts of the different discoveries which I have found, since my first lectures, to bear upon the subject, I have been regarded by many rather as the historian of the progress made in this branch of thought than as one who has had anything to do with its initiation. Every one is but a poor judge where he himself is interested, and I, therefore, write with diffidence; but it would be affecting an indifference which I do not feel if I did not state that I believe myself to have been the first who introduced this subject as a generalized system of philosophy, and continued to enforce it in my lectures and writings for many years, during which it met with the opposition usual and proper to novel ideas." Strictly interpreted, the term *correlation* means a necessary mutual or reciprocal dependence of two ideas, inseparable even in mental conception. As applied, how-

ever, to physical phenomena, Mr. Grove, in his essay, understands it in the sense of a necessary reciprocal production; that is to say, that any force capable of producing another may, in its turn, be produced by it. The term *force* may be defined as that which produces or resists motion. Our author is strongly inclined to believe that all the affections of matter above named will ultimately be resolved into modes of motion, yet he thinks it would be going too far at present to assume their identity with motion; he therefore uses the term "force," in reference to them, "as meaning that active principle inseparable from matter which is supposed to induce its various changes."

A familiar illustration from the text of the essay will make clear to our non-scientific readers what is sought to be indicated by the use of the word *force*: "To wind up a clock a certain amount of force is expended by the arm: this force is given back by the descent of the weight; the wheels move, the pendulum is kept oscillating, heat is generated at each point of friction, and the surrounding air is set in motion, a part of which is made obvious to us by the ticking sound. But, it will be said, if, instead of allowing the weight to act upon the machinery, the cord by which it is suspended be cut, the weight drops, and the force is at an end. By no means; for in this case the house is shaken by the concussion, and thus the force and motion are continued; while in the former case the weight reaches the ground quietly, and no evidence of force or motion is manifested by its impact, the whole having been previously dissipated." By a number of apposite examples Mr. Grove shows that force when once exerted is not annihilated, but continued in another form. When a moving body is arrested by contact with another body, the motion, though at an end as motion, exists as heat. A ball of iron discharged by a gun against a rock falls to the ground a heated mass. And so also heat is produced in the case of friction in the axle of a wheel: part of the force existing as motion passes into the form of heat. "Motion, then," says Mr. Grove, "will directly produce heat and electricity, and electricity, being produced by it, will produce magnetism. Light, also, is readily produced by motion, either directly, as when accompanying the heat of friction, or mediately, by electricity resulting from motion. In the decompositions and compositions which the terminal points proceeding from the conductors of an electrical machine develop when immersed in different chemical media, we get the production of chemical affinity by electricity, of which motion is the initial source. Lastly, motion may be again reproduced by the forces which have emanated from motion; thus, the divergence of the electrical wheel, the deflection of the magnetic needle, are, when resulting from frictional electricity, palpable movements reproduced by the intermediate modes of force, which have themselves been originated by motion."

In further illustration of the doctrine of the correlation of physical forces, we may here add, that, by a certain combination of apparatus in which light, acting through the daguerreotype, was the initiating force, Mr. Grove obtained, first the *chemical action* upon the plate; thence a current of *electricity* circulating through the wires; next *magnetism*, by a coil of these wires; then the production of *heat*, testified by the delicate helix of Bregnet; and finally of *motion*, shown by the needles of the galvanometer.

"In the work of Mr. Grove, bearing the title of the 'Correlation of Physical Forces,'" says a recent writer, "we have the first and most able exposition of the doctrine. Partial suggestions of it, both in England and Germany, had already been derived from the results

of experiment; but we owe to Mr. Grove its distinct annunciation as a physical principle, and the illustration of this principle by instances drawn from his own researches and those of others, which give it all the characters of a new physical law. Eminent in his own profession, he has made himself a high and merited reputation in science, by his acute application of experiment to some of its most profound problems, and by the bold but precise logic with which he draws his deductions. His work is remarkable for its clearness and simplicity of style; qualities valuable in all scientific writings, and essential on subjects like those here treated of."

This clearness and simplicity of style we cannot better illustrate than by giving two extracts by way of conclusion to this article. The first has a reference to the author's claims to originality in the system of thought unfolded in his work, and the second is the last paragraph contained in its pages. "The more extended our research becomes, the more we find that knowledge is a thing of slow progression, that the very notions which appear to ourselves new have arisen, though perhaps in a very indirect manner, from successive modifications of traditional opinions. Each word we utter, each thought we think, has in it the vestiges, is in itself the impress, of antecedent words and thoughts. As each material form, could we rightly read it, is a book, containing in itself the past history of the world, so, different though our philosophy may now appear to be from that of our progenitors, it is but theirs added to or subtracted from, transmitted drop by drop through the filter of antecedent, as ours will be through that of subsequent ages. The relic is to the past as the germ is to the future." So also in these modest and pregnant words does Mr. Grove wind up the argument of his able treatise on the affections of matter: "The conviction that the so-called imponderables are modes of motion will, at all events, lead the observer of natural phenomena to look for changes in these affections, wherever the intimate structure of matter is changed; and, conversely, to seek for changes in matter, either temporary or permanent, whenever it is affected by these forces. I believe he will seldom do this in vain. It was not until I had long reflected on the subject that I ventured to publish my views: their publication may induce others to think on their subject-matter. They are not put forward with the same objects, nor do they aim at the same elaboration of detail, as memoirs on newly-discovered physical facts: they purport to be a method of mentally regarding known facts, some few of which I have myself made known on other occasions, but the great mass of which have been accumulated by the labours of others, and are admitted as established truths. Every one has a right to view these facts through any medium he thinks fit to employ; but some theory must exist in the minds of those who reflect upon the many new phenomena which have recently, and more particularly during the present century, been discovered. It is by a generalized or connected view of past acquisitions in natural knowledge that deductions can best be drawn as to the probable character of the results to be anticipated. It is a great assistance in such investigations to be intimately convinced that no physical phenomena can stand alone: each is inevitably connected with anterior changes, and as inevitably productive of consequential changes, each with the other, and all with time and space; and, either in tracing back these antecedents or following up their consequents, many new phenomena hitherto believed distinct will be connected and explained: explanation is, indeed, only relation to something more familiar, not

more known; *i.e.*, known as to causative or creative agencies. In all phenomena, the more closely they are investigated, the more are we convinced that, humanly speaking, neither matter nor force can be created or annihilated, and that an essential cause is unattainable—Causation is the will, Creation the act of God."

ASCENT OF THE AIGUILLE VERTE.

BY EDWARD WHYMPER.

It is hard to say nowadays which district of the Alps is best known or finds most favour, and equally hard to say which is the most beautiful. There is a great diversity of opinion on the latter point: some men prefer rock forms, and to see the savage splintered pinnacles towering towards heaven; others the virgin snows; and so particular districts find their special admirers. Which is best known or most beautiful we shall not pretend to say, but there is no question which is the most popular and most frequently visited; and if the reader has not heard of this village or that peak, he is certain to have heard of the fame of Chamounix and Mont Blanc. Still, although the fame of Chamounix is world-wide, we fear the ordinary notions about it are somewhat vague and very incorrect. It is, we believe, usually supposed to be at the end of a long, straight road, with Mont Blanc rising conical-fashion behind it. It is supposed to be in Switzerland, and to be an enlarged edition of those toy Swiss châlets which may be bought in Regent Street or the Pantheon. Not less erroneous are the ideas about Mont Blanc and its ascent; by many persons the belief is still entertained that the mountain, although not quite inaccessible, is nearly so, and was only ascended a few years ago by an adventurous Englishman named Albert Smith. Alas for the popular belief! On a fine summer's day as many people may be frequently seen on the top of Mont Blanc as can be seen on the top of the Monument; the ascents that have been made can be numbered by the hundred; and Chamounix is only a collection of dirty hovels and pretentious second-rate hotels.

Chamounix has acquired its reputation not merely from being at the foot of the highest mountain in Europe, but from the exceedingly varied nature of the scenery by which it is surrounded. The village itself, although of ancient origin, is comparatively uninteresting; its situation is exposed and almost common-place; but it is good as a tourist centre, and, no matter what a man's tastes may be, he can, within a short distance, suit himself according to his fancy. Excursions of all kinds may be made, suited to all ages and strengths, by carriage, by mules, with guides or without them. Of course the larger part of the tourist world at Chamounix is not mountaineering. Most people come to look at the mountains, not to scramble over them; and, strange as it may seem, until quite recently, the recesses of the Mont Blanc range were less known than almost any other part of the Alps. People without number gazed from the mountain slopes, on the opposite side of the valley, at the mighty glaciers and the noble peaks rising from them, but did not traverse or attempt to ascend them, with the exception of Mont Blanc itself and the glacier known by the name of Mer de Glace. On maps the chain was laid down in the good old back-bone manner, usually straight and symmetrical, with Mont Blanc in the middle, and the Aiguilles dying away regularly on either side; or, when elaborately executed, presenting the appearance of one of those long furry caterpillars, with several smaller ones crawling over its back.

During the last few years the chain has been surveyed, and now maps may be obtained which are almost as correct as maps can be; and we now know that the chain is thirty-three miles in length, with an average breadth of nine or ten miles.

Two of the most popular excursions at Chamounix are made to points called the Brévent and the Flegère: they are popular because the views are magnificent, and because the whole of the distance can be accomplished on mule-back. Both of these points are on the opposite side of the valley to the Mont Blanc range: the former is nearly in face of, although 7000 feet below, the summit; and the latter commands a splendid view up the Mer de Glace. From the latter the summit is distant just nine miles, and does not look more important than several inferior points; but immediately in face of the spectator a sharp snowy cone is seen—supported by ridges that diverge in all directions, which looks grander than anything else: this is the Aiguille Verte, a peak more than 2000 feet lower than the summit, but one that, from its commanding position, is seen to the greatest advantage in the valley of Chamounix. Many men looked with longing eyes towards it, for, isolated as it is, it was known that it must give a view of unparalleled magnificence, and that a sight from it would make one understand the intricacies of the chain better than a month of gazing from inferior points. Many men tried to gain the summit, not only English, but French and Swiss: they all met alike with failure, some beaten back by rocks too steep for human power, some by crevasses in the ice of a magnitude too great to be passed. Year by year went by, and the Aiguille Verte was still unascended, every failure provoking fresh attempts, and making men more anxious to do that in which others had failed to succeed.

It was not surprising, when one examined the routes that had been followed, that these failures had resulted; for, had the adventurers taken the trouble to examine their proposed way with a telescope before starting, they must have seen in most instances that they would be obliged to come back. Some followed routes which had been tried already, and found impossible: indeed, the most difficult sides seemed to have the most admirers, and the side on which one would naturally expect to find a way up was left almost untried. To make the reader understand, a little description is necessary. From the main chain of Mont Blanc a ridge runs out nearly at right angles. The ridge is jagged and high, and becomes highest at the farther end from the main chain, where a number of radiating spurs are thrown out which support the peak called the Aiguille Verte. On each side of this ridge is a great glacier; the Mer de Glace on one side, the Glacier d'Argentière on the other: these come down almost into the valley of Chamounix, which crosses their general direction at right angles, and passes the base of the Aiguille Verte. The bed of the Mer de Glace falls during its course upwards of 4000 feet, and all this distance can be ascended without any trouble—it is mere walking; and, indeed, a good deal farther, to a place yet higher, called the "Jardin" (which is an island of rock in a sea of ice, which does not bear the remotest resemblance to a garden, and might be called more appropriately a howling wilderness), the way is sufficiently easy to allow ladies to go. The "Jardin," as the reader will see by the diagram, is quite on the opposite side of the Verte to the valley of Chamounix; and, while the latter is 3400 feet above the level of the sea, the "Jardin" is nearly 10,000 feet; so that there only remains a height of 3500 feet between it and the summit of the Aiguille.

It is somewhat surprising that, although hundreds of

people visited the "Jardin" every year, scarcely any one made a serious attempt to ascend from that direction; but so it was, and it remained neglected, while numerous attempts were made from the direction of the Glacier d'Argentière and of the valley of Chamounix.

take the men on the list by rotation, whether they liked them or not. As there are nearly three hundred guides on the list, comprising shoemakers, pig-drivers, "boots," milkmen, and all kinds of trades; as there are young and old, cleanly and dirty, civil and rude, it was of course



THE AIGUILLE DE BŒUF, FROM NEAR THE MONTANVERT.

Finding that this was so, the writer determined to have a try from the direction of the "Jardin," and went to Chamounix for that purpose last summer with two German guides, whom we will call Christian and Franz. There is a sort of rivalry between the guides of the Oberland and the Chamoniards, which the tourist may sometimes use to his advantage. The former like to invade the Mont Blanc district, and the latter return the compliment with interest. With the worthless sorts this spirit degenerates into bad feeling and ill will; but the best guides, whatever they may feel, have sufficient good sense to avoid making themselves offensive. The Chamounix regulations, too, in respect to guides, although they are greatly amended, are calculated to make an import guides from other districts. They used to set a tariff price on all excursions, and to oblige tourists to

more likely that the tourist would be fettered with a man who was simply a nuisance, than that he should get a good guide; and the regulation was found to be so bad, and so well calculated to make the worthless earn as much as the good men, that this one was at length modified, although there still remain regulations of a similar vexatious nature.

We got into Chamounix after a very severe twenty-one hours' walk, and waited a day to freshen a little. The news of our intended ascent soon spread, and many were the discouraging remarks made. As to ourselves, we were by no means sanguine that we should succeed; and when the hotel people, anxious to make a few more francs, wished to sell us a flag to put on the summit—"Only eighteen francs; Monsieur must take one; everyone takes a flag"—we declined, and said that it was

humiliating to have to bring a flag back without putting it on the top, and equally objectionable to throw it away. We started at mid-day, intending to sleep that night on some rocks near the "Jardin," so as to be close to the foot of the peak on the following morning, and saying that we expected to be on the top by eleven o'clock on the next day if we got there at all. The party was comprised of the writer, Christian, Franz, and a porter we had hired to carry a little tent and some blankets for our bivouac. The porter was a bad specimen of Chamounix: his name and his profession are alike unknown to us; but, judging by the odour that floated around him, his profession must have had some connection with pigs. We called him Jean, and made him walk in front, as the wind was blowing from behind. At half-past two we passed the Montanvert Inn, which has been frequently described in these pages. The summit of the Verte is hidden from it, but some of the crags that form part of the spur that descends towards the Montanvert stand up magnificently, and are one of the grandest sights of the entire range. These pinnacles are known by the name of the Aiguilles de Dru, and, although they are nearly 1500 feet lower than the Verte (of which they form but an insignificant fragment), as seen from the Montanvert they appear of great importance; so much so, that we believe the larger part of the tourists who visit the Montanvert go away with the impression that the Aiguilles de Dru are the Verte itself, and hence many who have seen them cannot understand how any human being could ascend those perpendicular cliffs.

The keeper of the inn was an old friend of ours, and we waited until four to chat with him. For his wretched little eight-roomed house he had to pay to the commune of Chamounix more than £150 for the four months' season; and the rent is increasing every year. This is a handsome, not to say a usurious rate of interest on the capital invested by the commune, which cannot be great, as the house is principally built of wood and mud, which can be obtained on the spot. Of course the landlord must be reimbursed for his rent; and the result is that living at the Montanvert is not distinguished for its cheapness. The gentlemen who go abroad with the notion that they can see Switzerland and all the rest for ten pounds must not come here; or they may come, but they must be total abstainers as long as they stop, and we need not say that their welcome is not likely to be very warm if they indulge in such practices.

Quitting our friend the innkeeper, we went onwards up the Mer de Glace, getting within sight of the "Jardin" soon after seven. It would have been going rather out of our way to go on to it, so we halted on the rocks at the angle, which is called the "couvercle." Enormous boulders lay about in every direction, and there was much scrambling before we found the best for our purpose, a great gray-headed old fellow that had a small cave under one side big enough to allow the tent to stand up in. There is a good deal to be learnt before one bivouacs out with comfort in the High Alps. At 10,000 feet, not much matter what the aspect, it is almost certain to freeze on a *fine* night. We say a *fine* night, because at the same elevation, and at much higher ones, it may not freeze if it is cloudy. One has therefore to study warmth. Then the direction of the wind is of great importance. - One should always get to the leeward of a rock or something; and, moreover, as a bivouac which may be warm and comfortable during part of the night may become wretched if the wind should happen to change, it is desirable to get more than

one side protected. Then you must take care that the camp is near water. Then you must look to the floor, and rake away all nobbly bits of rock which are likely to stick in your back-bone at night. Accomplished bivouackers are fond of collecting together rubbish, and even mud (if nothing better is to be obtained), and filling all interstices up; levelling the floor, in fact. It is most important to do this, for the vicious way in which sharp little bits of granite seem to find out one's sore points is something amazing. Then there is the fire. At 10,000 feet you must not expect to find much fuel, so you must come provided with something artificial in the way of a spirit-lamp. And so it goes on: there is, as we say, much to be learned before anything like proficiency can be attained. Christian and Franz were old hands at it, and we had passed many nights before together; so it was not long before the tent was up, the water got, the coffee boiling, and we, in a blanket apiece, sat with our pipes on the mackintosh floor, reclining on our rocky pillows. The sun was setting behind us, and its full glow fell on the mountains we saw through the door of the tent; a glorious spectacle which it is hopeless to attempt to translate into words. Before the daylight had quite gone the guides and myself scrambled out to survey our peak. From the place where we stood, the Glacier de Taléfre, a branch of the Mer de Glace, rose towards it in frozen waves to a great elevation. Then the peak itself jutted up, looking gray and solemn in the departing light. Below the summit, right down to the glacier, were ribs of rock, precipitous sometimes, partially powdered with snow. On the right it was less precipitous, and there was in consequence more snow. But we were still a mile and a half from its foot, and too far off to judge which was the best route; so we returned to the tent, and found the porter making great havoc among our provisions. The appetites of the Chamounix porters are extraordinary, and rival the almost fabulous stories told of the Esquimaux. Many we might almost say most of them pass the greater part of the year in a state of chronic starvation, happy to live on potatoes, and never dreaming of meat. No wonder, when their turn comes on the list, when they, instead of eightpence or ninepence a day, get a sovereign and the chance of unlimited food, that the opportunity is not lost. We are unable to estimate with any degree of accuracy the amount they could eat on such an occasion, but, judging from this sample and others, if an Englishman's appetite is represented by *x*, a German guide's would be by *xx*, and a Chamounix porter's would be by a sum of two German guides.

We went to bed, and got up early. By three o'clock we had had our breakfast, arranged the things which we were to take with us, and were ready to depart. But before leaving it was necessary to harangue the porter, and to appeal to his feelings as a man and a brother not to eat up all the hard eggs and cold mutton while we were away. We quite anticipated a hard day's work, and thought it probable we should not get back to the tent before dusk, so we wished to leave a reserve of provisions behind us. The writer, standing at the door of the tent wrapped in his blanket, made what he considered a telling oration; and when, after enlarging on the necessity of restraining his appetite, tears rose to the porter's eyes, he thought that the mutton was safe; but, alas! he overrated his oratory, for no effect had been produced on that hard-hearted man. Then, throwing away our blankets, we scrambled over the boulders in the dim twilight, every now and then stopping to beat our hands, for the air was as yet excessively

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cold. Before it was well light we got to the end of the rocks of the "couverte," and came to the glacier of which we have already spoken. It was but gently inclined, and it would have seemed to one unaccustomed to glaciers that any person might have made a straight track by himself across it to the foot of the peak; for it was covered with snow, and, excepting a gentle dip here and there, it was as flat as a table. But, although a man by himself *might* have got to the foot of the peak, the chances would have been rather against him; for it is precisely these flat and innocent-looking snow-covered parts of glaciers that are dangerous. Towards the lower ends of glaciers all the crevasses are visible, being exposed; but, as one ascends, more and more snow will be found over the surface of the ice, the crevasses are less visible because more covered, and at length, when one reaches the upper end, or what is called the *névé** region, almost all the crevasses will be covered. Sometimes the bridges of snow are substantial enough to drive over, but more frequently they give way with slight pressure. After a frosty night, bridges which are comparatively frail will allow a party to walk over, although later in the day the same bridges might give way with the pressure of a single pound. It is the impossibility of calculating whether a bridge will hold or not that renders it necessary to use rope in these parts. We, of course, tied up here, and then we could safely make straight tracks for the foot of the peak, which we did, and found that, gentle as the inclination was, we had in less than an hour and a half ascended more than two thousand feet. We were now immediately below the summit, and close to the rocks we have already mentioned. We halted, and carefully scanned them, and the result was that we decided not to try to ascend them; a decision that gave great satisfaction to the guides, who were quite of our mind. We moved accordingly round the foot of the peak towards the right, where there were some gullies, or, as they are called, "couloirs," filled with snow. These couloirs were at a considerable angle, but they led completely up from the glacier to a little below the right of the summit, and, if we could mount by them, we knew it would be a great saving of time. But they were streaked down the centre, and looked as if stones sometimes fell down them from the rocks on the sides. Of course, after stones have fallen in bounds over steep snow for a depth of a thousand feet, the velocity they have acquired is tremendous, and they are quite as dangerous as rifle bullets. We did not choose to risk being hit by them, so waited below, in a protected position, for some time, to see if any should fall. All was quiet; so we advanced. Between the foot of the couloirs and the glacier there was—as there almost invariably is in such situations—a crevasse of great size. These great crevasses are usually termed "bergschrunds," and are considered to mark the points of separation between the glaciers and the upper snows: in fact, we believe this is not so, and that they are larger than usual solely because the ice below moves down faster than that which is above; our opinion being based on the fact that the bergschrunds always widen as the summer advances in a larger proportion than other crevasses. The bergschrund we were about to cross was spanned by several bridges, all very shaky; but their surface was still frozen and hard. We untied, and allowed longer lengths of rope between each

man; then Christian, who led, dropped down on his hands and knees, and cautiously crawled over, taking care to distribute his weight as much as possible. We, planted some distance back, stood ready to haul him in on the first symptoms of falling. When he was across, we followed in similar manner; and so expeditious were we, that by a quarter past five in the morning we were on the other side, at last on the final peak of the Aiguille Verte, and at a height of nearly 12,000 feet above the sea.

Already we saw the last point of snow which crowned the peak, and all the intervening way; a rare thing this, for the actual summits of mountains are usually shut out until a few steps before they are gained. This being so, we were now able to estimate pretty correctly our chances of success, and in a few minutes we considered that the thing was as good as done, or, as Christian expressed it metaphorically, "O Aiguille Verte, you are dead, you are dead!" A little couloir on the right now attracted our notice, and we resolved to go up it, and cross, when at the top, into the larger one. This was done as a measure of precaution, because the risk from anything falling was slight in it in comparison with the larger one. We were still tied together, and our manner of progression was as follows:—Christian, leading, advanced, kicking his toes vigorously into the snow, and made little pigeon-hole steps. Sometimes a streak of ice was met with, and then he chipped away with his double-headed axe. We remained stationary, with our sticks driven deeply in the snow for anchorage. When Christian was as far as the rope would allow him to go, we advanced one by one, Christian gathering in the rope as the writer mounted, and he doing the same for Franz. By doing this the risk of making a slip is infinitesimal, and places which a single man would not be justified in attempting by himself may be passed by several with perfect safety. There were many places which did not require this caution, but it was adopted whenever it was desirable; and our progress, though slow, was sure. A little stream of water trickled down the centre of the couloir, and was grateful; for the sun had already struck the mountain, and the heat was excessive. An hour or so had passed before we got up the little couloir, and clambered over the rocks at the top into the great one; and here we went to work again in the same way. Another hour passed, and then streaks of ice became the rule rather than the exception. Kicking steps was at an end, and they were all cut. We got impatient, and thought that it would be quicker to ascend by the rocks on our left; so we quitted our gully, and took to them: good, firm old rocks, gray granite, the very thing to delight the heart of a climber, more exciting and pleasant than the snow. But we were still cautious, for both of the guides were prudent men. Many a time went the shout, before we moved, "Are you firm, Christian?" "Ja, Herr," came the quick reply; and then we advanced, Franz, perhaps, sticking his baton into some crack for one of our feet to step on, and then we both hauled him after us. But the reader will be able to imagine all this for himself by looking at the coloured illustration, in which the part we are now speaking about is represented.

At a quarter to ten we left the last rock: nothing now intervened between us and the top but a little ridge of snow. We stamped up it, and in less than half an hour were standing on the highest point, in full view of the valley of Chamounix, now nearly two miles of absolute depth below us. We arrived three quarters of an hour before the time we had told them, when below, to look up; and probably at the moment no one was

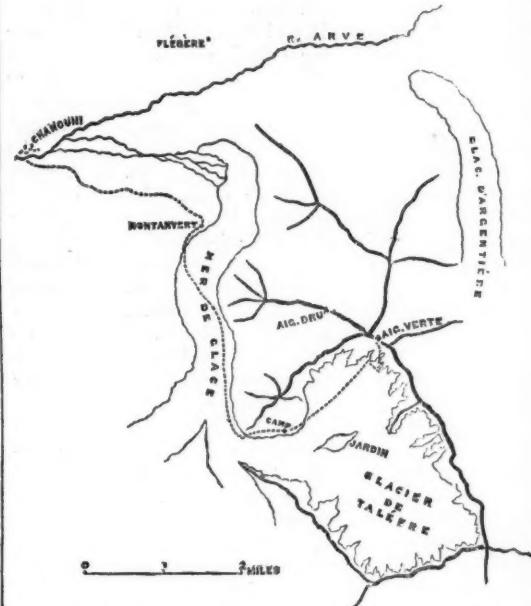
* The reader need not feel distressed if he does not understand this word. Although it is frequently used, few people do know what is meant by it, and there are uncommonly few by whom a precise definition could be given.

looking, as they had not the slightest belief that we should succeed better than our predecessors. This did not trouble us much, or at all interfere with the appetite with which we munched our bread-and-cheese: if there was a thing that interfered with our comfort at that moment, it was the thought that our mutton was in peril, and that we should probably have to wait many hours for another meal.

Up to this time the weather had been superb; but, as we sat on the snowy top, gazing on the wonderful view, clouds gradually rose from the valleys in all directions. We knew the signs too well, and prepared to depart at once; with great regret, for the view from the summit is one of extraordinary splendour. A peak that is seen from a number of points in a mountainous district must needs command a fine view, and it is absurd to suppose that the finest are seen from the highest summits. That from Mont Blanc, for instance, is notoriously unsatisfactory; and the reason is obvious. When you stand on the top; you look down on all the rest of Europe. There is nothing to look up to; all is below: there is no one point for the eye to rest on. The view is panoramic. It is like the impossible case of a man having attained all his desires: the position must be unsatisfactory, for there is nothing to aspire to; the world must needs seem flat. But in the view from the Verte there is not this objection. You see valleys, villages, fields; you see mountains interminable, rolling away; lakes resting in their hollows: you hear the tinkling of the sheep-bells as it rises through the clear mountain air, and the roar of the avalanches as they descend to the valleys. But it is not that which fixes itself on the memory: it is that great white dome, with its sparkling crest, high above, its brilliant snows purer and yet purer the farther they are removed from the unclean world; though the recollection of all else is vague, this remains indelibly fixed on the memory.

At eleven o'clock we commenced the descent. Clouds were already rolling up, and the rumbling of distant thunder was heard; so we lost no time, and went down quickly. But hardly an hour had passed before the clouds surrounded us, and it was snowing hard. The rocks, previously warm, became sloppy from the melting of the snow; and not only sloppy, but slippery. When they became so, moving quickly was out of the question, and we looked like anything rather than bold mountaineers. Regardless of appearance, we slid down in most ignominious postures, thinking only of safety, and went so slowly that as much time was occupied in the descent as in coming up. Nevertheless it was not slow under the circumstances, for almost all our step-cutting had to be done afresh; and where we could find our original steps, they had to be cleared of snow before we could venture to use them. We went with a rush at the bergschrund, and got through it rather than over it, so deeply did we sink; then—all the while through thick-falling snow, unable to see fifty yards ahead—raced down towards the tent, where we knew we could get shelter, and hoped we might get dry. We got to our rock at a quarter-past four, after an absence of just thirteen hours, out of which we had been going for eleven and a half. As we rounded the rock a howl broke simultaneously from all three of us, for the porter had taken the tent down, and was in the act of moving off with it. "Hi! stop!" "What are you doing?" and much stronger remarks were poured out at him. To our amazement, he coolly observed that he thought we were killed, or at least lost, and that he was going down to Chamounix to tell the "chief guide" so. "Stop," we said; "unroll the tent, and get out the

provisions"—for we, to move more freely, had left nearly all behind—but the porter, instead of so doing, fumbled in his pockets, and at length produced a dirty piece of bread about as big as a half-penny roll. "Where are the provisions?" we roared, losing all patience. "Here, monsieur; here," said he, pointing to the fluff-covered bit of bread. The three looked at each other solemnly, for it was past a joke; and we could not believe, great as our experience of this kind of thing had been, that so utter a sweep could have been made of everything. But it was all gone, past recovery; and, as there was little use in wasting words, we beckoned to Christian, and intimated our desire to descend the rest of the way quickly. Few men can move quicker than he when in the humour, and, readily comprehending the intention, he put on such pace that, in a short time, the porter had to shuffle, then trot, and that soon caused him to stream with perspiration, and mop his face incessantly. Then was the time for our revenge, and we chaffed him unmercifully, taking care that the pace was not relaxed. As he became wet so we became dry, and by the time we had reached the Montanvert Inn he was as moist as we had been on arrival at our rock. Sending Franz on ahead to secure beds at Chamounix, we waited an hour at the inn to get a little food, and then followed him down, arriving at the Hôtel de Londres at a quarter-past eight, welcomed by a host of temporary friends, while the Mont Blanc cannons popped in honour of our success.



ROUTE FOLLOWED FOR THE ASCENT OF THE AIGUILLE VERTE.
The thick lines indicate the direction of the principal ridges the dotted line the route followed.

THE FIRST-CUT CORN.

It is the burning month of August. I have left off clothes, upper and under, until the customs of life warn me to pause. I admire, almost envy, but may not emulate, the philosophy of that Irishman who walked, on such a sultry day, tranquilly through Hyde Park with his garments on a stick across his shoulder. Little else but alpaca and linen, I have been sitting in my

bow-window, both this and the door being wide open, trying to write. But no least breath of air has come to reward me, and I have felt like a patient in the

non eujusvis est, it is not in the power of every one to command the situation and the refreshment. How simply terrific to think that one's dinner must be cooked



Richter.

Turkish bath, or like a pine in a pine-house. Before I melt, and become a small puddle in my own study, let me rush—no, no, crawl—into the open air; not that I believe there is there relief to be had, for I have watched the delicate fringe of those long arms of the ash-trees, and could not detect the least quiver in the very outermost of the thin leaves. The stillness of hot August noon is a thing glorious to imagine and to look forward to from the writhings under the east winds of May; but let us candidly own that the thing is positively no joke when it comes. Perhaps standing up to your neck in the sea, and eating strawberry ices, becomes your ideal of enjoyment at such a time; but

on such a day! To say nothing of aiding and abetting the sun in his proceedings by having any fire upon earth at all, only consider the case of the cook who has to stand over it! And yet we blame these estimable creatures for being cross! Rather let us praise them that they do not drug their master's food to-day, in order to avoid having to prepare another dinner to-morrow. And what could I be thinking of (certainly I did it in bitter May) to be putting that bed of scarlet geraniums just in sight of the window? They seem to be slowly roasting me (I suppose mere colour could not really do that) on this day, when the very blues and greens are intolerably hot.

One place is, I suppose, as cool, or rather as hot, as another to-day; so I shall follow the guiding of my fancy, and saunter, by degrees, across the green meadows to that broad brown-orange corn-field which I have watched from infancy to maturity. In the winter it pleased me to see the caked weedy surface turned topsy-turvy, and the long moist furrows of dark, sweet-smelling earth taking its place. In the spring it was delicious to be surprised, after a day and night of close, steady, warm rain, by the merest tinge of green ruling the field in lines, and growing more and more distinct for me to watch every morning while dressing. In the summer it had grown into a deep living sea of hoary green; and its billowy motion was so ceaseless, yet so lulling, that it led one to speculate on the paradox of how ceaseless movement could give the idea of tranquillity and rest. You get this paradox from the sea, and corn-fields, and pine-groves.

And now for the last week I have watched the result of all this preparation. For this last week that dark-green hedge has made a frame to a sheet of colour to call which golden would be a very inadequate description. A rich, vivid burnt orange, rather suggesting than possessing the hint of a purple wave across it when a warm air bowed the myriad heavy heads together away from the west: thus, for fault of better words, must my description of it stand. It reached perfection those few days ago, and stood at this point but for a few brief days, when I missed, though reluctant to own that I missed, a faint tinge of its glory. And now there is no mistake about the matter: that orange-gold has certainly faded into a dull buff-yellow. Even now it is beautiful, but I feel that there is a falling off. How one might moralize on this short duration of perfection, and quick coming on of deterioration! How much the rule this is, in this mundane state of things! It is so with the year. All through the first half we have been looking forward to full attainment; have watched the days growing longer, and still have looked forward to their lengthening; have watched the fernery being clothed, and still have longed for the unfolding of some new fronds, rolled up like snails on the moss; have watched the Banksia rose growing thick with buds, and have longed for the time when it should become a sheet of white or buff; have watched the hawthorn covered with little white tennis-balls, and have been impatient for the broad masses of the May; have looked forward through February to March, through March to April, through April to May, through May to June; but then? The days begin to shorten nearly as soon as they have attained to their longest; the fernery settles down to its dull green very close upon the uncurling of its last fronds; the rose has but worn its glory for a week, when the lawn is powdered with yellow, and the magnificence of the sight is of the past; the hawthorn has set its pink-tinged cup-petals to float, in very armadas of fairy shallop, all over the pond; and June has passed into July, and the year has turned, and the looking forward is over. Attainment is like a handful of dry sand: you no sooner have grasped it, than it begins to run away; and the tighter you clutch it, the more subtly and surely it evades you. Anticipation is almost more of a possession than is achievement, in one sense: you at least have the enjoyment of it longer. How long I have watched that field, hastening it on, in my thought, to its zenith: it has reached it, and I have had a few eye-feastings upon it, and now its glory has passed by for this year, and the decline has come. Yes, I might moralize upon this slight incident; and I may as well let my thoughts have their way, even though

they should run on in a somewhat obvious and commonplace groove, as I wend my way through the second crop of clover towards the first-cut sheaves. I cannot but think of youth's eager looking forward, and earnest pressing on from the seed sown to the blade, and the green ear and the ripe; and then? February, March, April, May, June; none of these are fully enjoyed, because a month of yet further and fuller growth lies beyond; this is at last attained, and, again, what then? The summit of our youth's dreams reached; education over, and the man his own master, and settled in his profession; courtship over, and the wild dream of marriage become a sober reality; in everything towards which youth was pressing, the point of attainment reached; and how long does the glamour of the first ripeness last? Is manhood really the glorious thing that it seemed to youth? and are we permitted long to exult in the attainment of our prime? Or when there is no more advance, does decline invariably succeed? When the sun has touched the zenith, must it forthwith begin to go down? When we have toiled eagerly up the hill, and at last stand upon the summit, is there then always nothing left but just to begin to descend on the other side? Does the glory of life pass when the corn is ripe? and is all over then, until *next year*?

Let us think whether this is so; for, indeed, until we are men, do we not restlessly

"Tease the future tense, and plan
The full-grown doings of the man,
And pant for years to come"?

Thus Hood, moralizing upon the playground of his boyhood. He wonders, now that he has attained, now that golden manhood has been reached, and perhaps a little passed, to fancy the impatient anticipations and eager lookings forward of the boy. There is one curveting in spirited emulation of a horse—

"Yet he would gladly halt, and drop
That boyish harness off, to swoop
With this world's heavy van—
To toil, to tug. O little fool,
While thou canst be a horse at school,
To wish to be a man!
"Perchance thou deem'st it were a thing
To wear a crown, to be a king,
And sleep on regal down.
Alas! thou know'st not kingly cares:
Far happier is thy head, that wears
That hat without a crown!"

Yes, the gold glory comes at last on the corn; it reaches its limit of growth and advance: for a little while the enchantment may endure, but soon the gold will dull into yellow, the yellow into buff, and the newness, and strangeness, and delight of attainment fade into the commonplace. I seem to see, therefore, in the sober-hued field, the period of manhood in this our life—the time when most of life's great epochs have been undergone, most of its great anticipations attained, and when, if they have not disappointed, they have become familiar and somewhat commonplace; the time just following that when

"The sylvan slopes with corn-clad fields
Are hung, as if with golden shields;"

the time that I may call Rehoboam's reign, when the golden shields are replaced with brazen.

Day by day you watch after that time of attainment has been reached, and, though you are loath and late to own it to yourself, you perceive that a glamour is dying off from life. And this much must be owned as against the period of manhood: the butterfly that you grasp is not quite that which once danced before you over the daisy fields; the low purple shore that lay in the distance had a charm that leaves it when the rattling waters have

ceased from your boat, and its keel has grated upon the beach. Yet if

" Old Age hath yet its honour and its toil,"

shall manhood be thought to be really the loser because from all earth's attainments a glory must depart which in verity never belonged to them, but was cast, like sunlight upon the dull moon, from the immortal within our own heart and mind? Nay, it need not be so; and I will now defend this age of Attainment against imputations which yet I hold to be not all sentimental. If my field had been one of scarlet poppies, I grant you a pitiable loss would have followed upon the fluttering down of their gay banners. But I am now talking of a *corn-field* that has attained and passed its acme of glory: it is a little dull now to what it was, and, doubtless, some loss has been suffered. If we consider more closely, however, we find that more gain has really been received, and that the dull yellow field ought not to regret that time of emerald freshness, or of full green anticipation, or of unimaginable first attainment; for it is now ripe, and at its point of highest value.

" How poor are Fancy's blooms to thoughtful fruits."

And consider how far more valuable is manhood's experience than youth's ardour. What half-views we take when we are young—eager, impetuous, bigoted half-views. But, if we are at all wise and thoughtful, how we seem to have attained the other half of questions when the corn is ripe; and if we are somewhat less vehement and positive, and less for carrying all with us and before us, are the mildness and forbearance and wider sympathy that we have learnt no adequate substitute for some of those ardours that we miss?

" Youth ended, I shall try

My gain or loss thereby:

Be the fire ashes, what survives is gold;

And I shall weigh the same,

Give life its praise or blame:

Young, all lay in dispute; I shall know, being old."

And before age comes, even at that turn of life when the first flush of the corn is gone, we have attained a point from which we can look backward and forward, and judge distances, and detect fallacious appearances, and distinguish between things that are and things that seem, in a way which forbids the thinking mind to wish to exchange manhood's attainment for youth's glow.

Again, though in action youth is the more showy, yet how much more sterling usually is the work of experience. How the recruit dashes on, unrealizing danger, heedless of it; but what general does not rather rely on his veterans?

I feel this to be true in my own most high office and ministry. There is something in the first onset against evil, when you are young and just ordained, the like of which you miss in after-life. Evil must give way before you, and men and women shall be in caravans haled and hurried off to follow their best interests. Ah, well! you lose this expectation and this excitement in time, and find that this threadbare world is not on a sudden, and by your single work, to be not only patched up, but made new. You learn to look at the whole routine of your ministry, with all its varied calls, and opportunities, and watchings, and waitings, and actions, as a sea with many waves. Each wave is to do its mite toward rounding the stones, and then it retires, and another comes, and so on endlessly. Each has, you believe, an influence, imperceptible it may be, but you have learned to work without such feverish expectation of immediate and palpable results. There is a gravity, perhaps even a sadness, upon your work; still, if it be

not less earnest, it need not grieve you that it is done in a quieter spirit than before it had gained the full ripening of experience. That ardour of inexperience was a thrilling and exhilarating thing. But experience is better than that was, even if it lack some of the ardour. Your work at forty, even if it be more sober-hued, is, if still as earnest, of far greater value than it was when on the young side of thirty. The parish priest in full experience is the far more valuable man than the young curate who chafes under his caution, and deliberation, and weighing of all sides of an action or a question. So, too, how many a young man who used to rebel at his father's theories, practices, and cautions, and think him only growing mouldy and behind the times, looks back to acknowledge in after-life that the full ripe corn, although more sober-hued than that hardly ripe, was yet assuredly of greater value.

I have been so long on my way to the field, where the few first sheaves are rising—what with the sitting on stiles, and leaning against gates, necessary on such a day—that I can do little else, now I am in it, than sit in the shade of a hedge and watch the children, left to keep company with each other at this corner of the field, while their parents are at work among the grain. Ah, these few sheaves suggest to me how, when ripeness is attained, reaping begins; and how, when we cease to grow, we begin to die!

" When the fruit is brought forth, immediately he putteth in the sickle, because the harvest is come."

Yes, it may take some time in the reaping; but the sickle was put in then. We may take some time in going down the hill, but we begin the descent when we have ceased to climb. And these things also have a sadness, and a cheerful side. Is it not something to have the corn mature, and cut, and standing there free from those old threats of mildew and blight? Oh, well, then, if, by God's help, we have been enabled to set by some results of our life's long growth, in useful and acceptable sheaves for Him! Well if, as the day falls, and the shadows lengthen, and the field grows bare, there are still rising, and shall still rise, those long rows of goodly sheaves!

LIFE IN A GERMAN COUNTRY HOUSE.*

I HAVE been rather amused lately by an article in "The Leisure Hour" for April, entitled "Life in a German Country House." Though evidently a recollection of "auld lang syne," the little picture is painted in lively colours, and cannot fail, I am sure, to give pleasure even to those who cannot have the same interest which I have in hearing German life described by an English pen.

But, while it is only justice to say that this little narrative is amusingly written, it is nevertheless far from giving satisfaction to a German reader; and I cannot refrain from making a few remarks, and protesting, in the name of my countrywomen, against conclusions that might be drawn in too strict accordance with the sample of German country life here given. I cannot help thinking that the writer had more the amusement of her readers in view than anything else; and, though she may only have told what was strictly true in this one particular case, it would have made her description more pleasant if that English weakness of always praising everything English above everything foreign had not been too prevalent. Besides, it would only have been fair to state how many years ago, and in what part of Northern Germany, the lady may have gathered her experience of German life.

* While in courtesy allowing a German correspondent to give expression to her patriotic protest, we must remark that the narrative evidently referred to an outlandish part of Prussia; and we suspect that few German ladies could have described life in an English country house without falling into some slight errors.

I am quite ready to believe that, many years ago, in some remote part of back Pomerania or Eastern Prussia, things may have been as described in that article, from the absence of the egg-cups and toilet-table up to the dusty garden walks and weedy flower-beds. But I can only say that my experience, which is not based on one case only, is of a very different nature. It is quite true that we Germans do not, happily for us, attach so much importance to all the luxuries of life as is the case in England; but I must say that, though sometimes more than fifteen miles distant from a railway-station, and in houses where there was no pretence to luxury, I never yet found a bedroom so bare as the one described; and that wherever I went I have always been lucky enough to be provided with a well-furnished washing-stand, which was not meant to be anything else during the day.

The narrator must have gone with wonderful notions on her German visit. She seems to have expected a sort of back-woods life! She dwells with considerable length on the good-natured hospitality she everywhere meets. She praises it just as one would praise it in a savage, and is not only astonished to find a certain degree of intellectual culture in German women, but actually quite wonders not to find that they are only good for knitting stockings and spinning flax.

The lady expresses her delight at the sight of an English newspaper, with its good print, and full of information from all parts of the world, in such a naïve style, that I could not help laughing heartily at the way in which one may be misled by national prejudice.

It is quite true that, on political subjects, the German press does not enjoy the same liberty as is the case in England. But I do not see why the absence of political opinions should make a newspaper "flimsy, poor, and spiritless," and why the writer, from the bad specimen of German journalism she has met with, should conclude that all the German papers are of the same class. It is very likely that Count Fersen was much engrossed by his farming, and quite satisfied to read the provincial newspaper from the next town; that the young ladies and their mamma preferred novels to more solid and instructive reading; and that therefore their English visitors had no opportunity of forming any opinion on this subject: but I can assure my English friends, from my own experience, which has not been gathered at a large town or in the heart of Germany, that our newspapers give us quite as good an account of all that passes in the world as the English do; and that our illustrated journals, for instance, are, in exterior as well as contents, at least equal to the papers of the same class in England. If I were to name half a dozen of our most intellectual papers, full of scientific and literary information, the fair lady would very likely own that she never heard of them before; but that evidently is no reason that they do not exist, or are not to be had and read in many country houses.

Quite to her astonishment, the writer also finds that music and drawing are much cultivated by German ladies, and that they even attain a degree of perfection therein quite unaccountable in a German. The simple statement of this fact does not satisfy the author: she takes opportunity to express at the same time a quite ill-founded suspicion, that, though there are these graceful accomplishments, there may be a want of solid foundation and thorough grounding in German female education, compared with what England's daughters enjoy.

In answer to these remarks I wish merely to ask a question: what is the reason that German governesses are so frequently preferred for a home education in England? or are they only intended to teach English children knitting and sewing? What is the reason that these same governesses so often complain that it is impossible for them to introduce a more systematic and orderly way of teaching, instead of the deadening practice of learning by heart which is usual in England, and leaves little room for thought and exercise of mind?

I never heard in Germany the little popular comparison one so often meets here, or else I would not cite it—"English beauty, French grace, and German sense." We German women resign ourselves cheerfully to the portion allotted to us, and leave without envy to the fair sex across the ocean and beyond the Rhine the outward charms most justly given to them by common assent. But we do equally wish to preserve the share given to us by others; and I ask the lady who ventured the severe criticism on our German education if she thinks that we could possibly deserve what public voice gives to us, or would be able to preserve it, if the minds of German women were not well cultivated in each successive generation, instead of being only adorned with graceful accomplishments, which, indeed, are a very insufficient covering for an uncultivated mind. c.

Varieties.

MARY CHAWORTH, BYRON'S EARLY LOVE.—There is a monumental figure in the church at Colwick, representing Mary Chaworth. At its base is the following inscription:—

To the Memory of
MARY ANN MUSTERS,
Died 6 February, 1832. Aged 47.

For her who sleeps beneath this holy place,
This marble speaks our grief, but points to this—
Faith in God's mercies, through a Saviour's grace,
To wake in regions of eternal bliss.

Mary Ann Musters was the only daughter and heiress of George Chaworth, Esq., of Annesley, in the county of Nottingham, and wife of John Musters, Esq., of Colwick, in the said county, by whom this monument was erected.

This epitaph was written by Thomas Wrightson Vaughan, who married one of Mr. Musters's sisters. A friend, who lived long in the immediate neighbourhood of Jack Musters, sent me this startling account of his wife; but for the truth of the assertions contained in it of course I do not vouch:—"Bowed down by care and neglect, I have often seen Mary Chaworth—the scion of a time-honoured race—kneeling in the ancestral pew in the old village church, casting her sorrows and her burden on her Saviour. And who can venture to say that there were not times in that holy place wherein were the marble effigies of the bold ancestors of him whose first and only love she had ever been, when her fancy wandered to the old hearth, an antique rectory at Annesley, well-nigh as desolate now as her own heart, and thought that, had her lot been linked with his, their destiny might not, as now, have ended—the one in madness, both in misery?" Moore visited Colwick about this time, when collecting materials for a "Memoir of Byron." He saw Mrs. Musters, and tells how "she cried" as he sang one of his lyrics. The husband was absent at the time. The neglect no doubt refers to certain notorious irregularities of her husband. Her health was long broken down, and her death was hastened by the alarm on the house being attacked (in her husband's absence) by the Nottingham mob, during the Reform excitement of 1831.—*Recollections of the Hon. Granville Berkeley.*

COWPER AND COOPER.—TO THE EDITOR OF "THE LEISURE HOUR."—Sir,—I am not quite satisfied with Mr. B. H. Cowper's criticism. Though I possess no heraldic lore, I fancy there are some questions which might still be asked. Heraldic animals, for example, are often not to be found in any Natural History; and so, for aught I know, bulls may stand for cows, heraldry not allowing the wife-sex, being altogether disdainful of such distinctions. Then, though possibly Cowper may be derived from *coup*, to barter, may it not otherwise be an abbreviation of cow-keeper? It is curious that, though no hoops are to be found on the shield of the Shafesbury arms in the modern books of heraldry, in a copy of the "Characteristicks," in my possession, dated 1749, the hoops are found. But, apart from all this, there is the poet's statement to my grandfather, which cannot be questioned, and which must have been founded on some tradition current in the family. Moreover, there is the singular fact of the pronunciation of the name as Cooper, and not Cowper. I am not, however, careful to do battle in the matter, but should be glad of a little more light, if it is to be had. JOSIAH BULL, Newport Pagnell.

THE SCOTCH AT HOME.—Edinburgh numbers 1530 one-roomed houses, of which 825 contain each six inmates and under, whilst no one of the remaining 705 contains less than that number of occupants. In Glasgow the state of things is still worse; for there the number of one-roomed houses is 2212, of which number 1253 shelter seven human creatures, whilst each of the other 959 dwellings has more than seven inmates. There are in all Scotland no fewer than 7964 houses—if they can be called houses—without windows! and 226,723 houses of only one apartment; proving that nearly one million of the people of Scotland, or nearly one-third of the entire population, are living in houses—places improperly so called—in which neither the comforts nor decencies of life can be secured, and which are thus totally unfit for human habitation. What wonder that working men like to spend as much of their leisure as possible in public-houses, and as little of it as possible in their homes!—Rev. Dr. Begg.